New GigE Vision Camera

1.6 MP 72 fps **BG160M series**

0.4 MP 291 fps **BG040M series**

GiGE VISION

Pregius

New IP Core

High Image Quality

IMAGING REVOLUTION

Feature

- Super high speed response with new IP core; ‘**TELI Core Technology**’ (no CPU) system
- With Sony’s ultra high image quality CMOS sensor
- 1.6Mp (IMX273) : 72 fps / 1,440(H) x 1,080(V) pixels
- 0.4Mp (IMX287) : 291 fps / 720(H) x 540(V) pixels
- Global shutter type
- Correspond with “TeliCamSDK” (Software development kit, free supply)

29 × 29 × 40 mm 59g

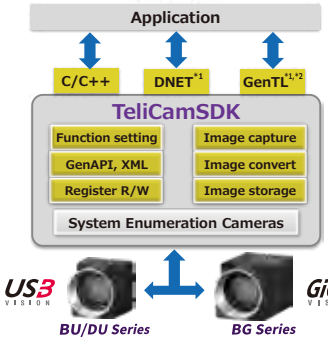
Toshiba Teli Corporation

http://www.toshiba-teli.co.jp/en/

Specifications

B/W or COLOR	B/W	COLOR	B/W	COLOR
Pixels	0.4M		1.6M	
ITEM / MODEL	BG040M	BG040MC BG040MCF	BG160M	BG160MC BG160MCF
Interface	Gigabit Ethernet IEEE802.3ab (1000BASE-T)			
Imager	1/2.9 type GS-CMOS (IMX287)		1/2.9 type GS-CMOS (IMX273)	
Resolution	720 (H) X 540 (V)		1,440 (H) X 1,080 (V)	
Max. Frame Rate (all pixels readout)	291 fps (Mono 8), 145 fps (Mono 10 / 12)	291 fps (Bayer 8), 145 fps (Bayer 10 / 12)	72 fps (Mono 8), 36 fps (Mono 10 / 12)	72 fps (Bayer 8), 36 fps (Bayer 10 / 12)
Pixel Size	6.90 (H) X 6.90 (V) µm		3.45 (H) X 3.45 (V) µm	
Electronic Shutter	MANUAL (Global Shutter) / Random Trigger Shutter (Global Shutter)			
Random Trigger Shutter Type	External Trigger / Software Trigger			
Random Trigger Shutter Mode	Edge / Level / Bulk (255 times)			
Sequential Shutter	16 entry (max)			
Exposure Time	30 µs to 16 s (MANUAL), 30 µs to 1 s (AE), 30 µs to 16 s (Edge or Bulk Mode), Trigger width above 200 µs (Level Mode)		30 µs to 16 s (MANUAL), 30 µs to 1 s (AE), 30 µs to 16 s (Edge or Bulk Mode), Trigger width above 200 µs (Level Mode)	
Scan Method	Progressive			
On-chip Color Filter	-	RGB primary color mosaic	-	RGB primary color mosaic
Dust-proof Glass / IR Cut Filter	-	C : None CF : with IR Cut Filter	-	C : None CF : with IR Cut Filter
Standard Sensitivity (Gain : 0dB)	1,890 lx, F5.6, 1/333 s	(TBD)	1,700 lx, F5.6, 1/77 s	(TBD)
Minimum Sensitivity (Video Level:50%)	4 lx (F1.4, Gain +24 dB)	(TBD)	4 lx (F1.4, Gain +24 dB)	(TBD)
Gain	0 to +24 dB (MANUAL, AGC)			
Black Level	-25 to +25 %			
White Balance	-	Manual, One push C : N/A, CF : 2,500 to 6,500 K	-	Manual, One push C : N/A, CF : 2,500 to 6,500 K
Gamma / LUT	γ=1.0 to 0.45 / In 12 bit, Out 12 bit			
Sharpness	✓			
HUE	-	✓	-	✓
Saturation	-	✓	-	✓
Test pattern	✓			
Memory Shot, Number of Frames	172 frames (Mono 8, all pixels readout)	172 frames (Bayer 8, all pixels readout)	43 frames (Mono 8, all pixels readout)	43 frames (Bayer 8, all pixels readout)
Image Re-send	✓			
Image Time Stamp	✓			
Event Nortification	FrameTrigger, FrameTriggerError, FrameTriggerWait, FrameTransferStart, FrameTransferEnd, ExposureStart, ExposureEnd, Timer0Start, Timer0End			
Chunk	UserAreaTable, FrameID, ExposureTime, Gain, WhiteBalaceR/B, LineStatusAll, FrameBurstCount, SequentialShutterNumber/Element			
Image Output Format	Mono 8 / 10 / 12 bit All pixel, Scalable, Binning, Decimation, Mirrorinig, Flip	RGB / BGR 24 bit, YUV411 12 bit, YUV422 16 bit, Bayer 8 / 10 / 12 bit, Mono 8 bit All pixel, Scalable, Binning, Decimation, Mirrorinig, Flip	Mono 8 / 10 / 12 bit All pixel, Scalable, Binning, Decimation, Mirrorinig, Flip	RGB / BGR 24 bit, YUV411 12 bit, YUV422 16 bit, Bayer 8 / 10 / 12 bit, Mono 8 bit All pixel, Scalable, Binning, Decimation, Mirrorinig, Flip
External Trigger Input	1 channel / Photo-coupler			
GPIO Input Output	In/Out : 1 channel (selectable) / LVTTL, Out : 1 channel / Photo-coupler			
Power Supply	PoE (RJ-45 connector) / DC +12 V ±10 % (HIROSE connector)			
Power Consumption	3.3 W (PoE) / 2.7 W (HIROSE connector)	(TBD) W (PoE) / (TBD) W (HIROSE connector)	3.3 W (PoE) / 2.7 W (HIROSE connector)	(TBD) W (PoE) / (TBD) W (HIROSE connector)
Lens Mount	C Mount			
Dimensions / Mass	29 (W) x 29 (H) x 40 (D) mm (Not including protrusion) / 59 g			
Operation Assurance	Temperature : 0 ℃ to 40 ℃ (Camera housing temperature: less than 60 ℃), Humidity : 10 % to 90 % (no condensation)			
Conformity	CE, FCC, RoHS, WEEE, GigE Vision (Ver1.2), GenICam (Ver2.4, Ver3.0), PoE (IEEE802.3af), IIDC2 (Ver1.1.0)			
Product Availability	Available	December 2019	Available	December 2019

TeliCamSDK



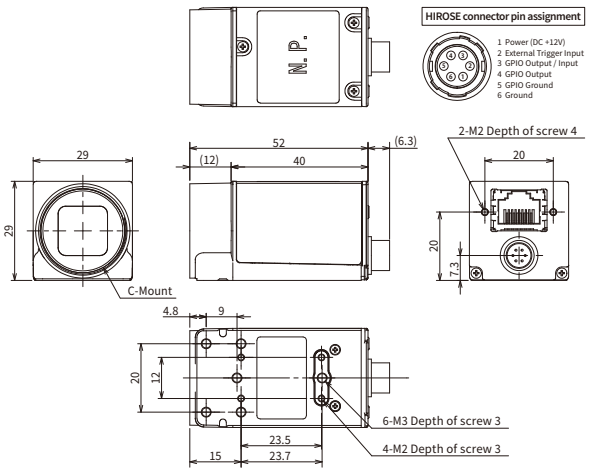
- Easy to capture image
- GEN<i>CAM available
- Varieties of functions for easy programming
- Abundant sample code
- Easy to understand manuals
- Unified SDK for USB3.0 & GigE

TeliCamSDK for Linux supported ARM architectures.
- Jetson TK1 - Jetson TX2
- Odroid XU4 (*5) - Raspberry pi 3 (*5, *6)

bit	Windows					Linux		
	XP SP3	Vista	7	8.1	10	Ubuntu 14.04 LTS	Debian 8.1.0	Linux ARM
32	✔ *3	✔ *3	✔	✔	✔	✔ *4	✔ *4	✔ *4
64	–	✔ *3	✔	✔	✔	✔	✔	✔ *4

*1: for Windows / *2: USB only / *3: Corresponds to old version / *4: Please contact us /
*5: With a GigE Vision camera, image might be missed depending on PC specifications. / *6: USB3 Vision camera cannot be used.

Outline Drawing



Notes on Safety

- Before using this product, please read “Operation Manual“ carefully in order to use this product afely and correctly.
- If this product should be used in the extraordinary conditions or environments, or if you have any questions or problems, please contact our sales division.

Toshiba Teli Corporation

http://www.toshiba-teli.co.jp/en/

teli camera Search

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